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May 29 1913
"Experts in Waterproofing"
Hackett



Some Facts

in regard to

Waterproofing

in general, with a description of

HYDRO-BAR

THE HYDRO-BAR WATERPROOFING CO.

30 West 33rd Street

New York

— ADDRESS —
F. WILLIAM GARDNER & CO., Inc.
General Sales Agents.

"Experts in Waterproofing"

If you are ill, you go to a doctor for treatment.

If in legal trouble, you take a lawyer's advice.

If you meet a building problem out of your line, you get the help of an expert.

Waterproofing presents a new problem with almost every job.

We are Expert Waterproofers.

We are Specialists in that one line.

Expert Waterproofing



For trade reasons and to establish
a distinct difference, our products
have been renamed as follows:-

LAPADAs

Formerly known as "Hydro-Bar"

s0l0t0

Formerly known as "Hydro-Lite"

PEsEdEs

An elastic cement for repairing walls,
of any kind, or Pointing up around
windows and skylights, has been
added to our list.

F. WILLIAM STOCKER & CO., Inc. Mfrs.

GENERAL SALES AGENTS

30 WEST 33rd STREET

NEW YORK



RESIDENCE OF MR. F. W. AMES, 21 LIBERTY PLACE, WEEHAWKEN, N. J.

New York, December 23, 1909.

HYDRO-BAR WATERPROOFING CO.,

30 West 33d Street, New York, N. Y.

GENTLEMEN:—

Replying to your favor of even date asking my opinion of work done on my residence, beg to say that I am entirely satisfied with the results obtained in this job through your workmanship and material.

On completion of my residence I was left with a very bad job of stucco, the surface of same being full of cracks, holes and badly discolored. After the application of three coats of your material called HYDRO-BAR, mixed with cement and sand, I have a very complete job of pearl gray stucco, which from all appearances is absolutely impervious to water.

It therefore affords me great pleasure to recommend the HYDRO-BAR WATERPROOFING CO. and its materials to any one who may have work of this kind.

Wishing you success, I remain,

Yours very respectfully,

F. W. AMES,
345 West 41st Street, New York City.

Introducing Ourselves

The HYDRO-BAR WATERPROOFING COMPANY acts as consulting engineers and contractors for waterproofing of any kind or character.

We have made a special study of this one branch of the building trade, and are qualified by long and varied experience to advise and estimate on any kind of waterproofing job which you may meet with.

Our experience has covered all the various systems and waterproofing compounds in general use to-day.

We know the strong points and the weak points of each; we know which is best suited to the conditions of each particular job, and are prepared to advise and estimate and carry out contracts under any system and with any brand of materials which is best suited to the job in hand.

We do not restrict ourselves to the use of our own compounds or coatings or any other single waterproofing material or system.

In waterproofing work, perhaps more than any other branch of the building trade, each problem must be studied and treated individually. Unless this is done, there can be no assurance of a perfect job.

Our experience in waterproofing basements, tunnels, reservoirs, swimming tanks, oil-pits, stucco residences, brick walls and masonry of all kinds, has been so varied and so thorough that we are now prepared to guarantee absolutely any work which we undertake.

We are glad, whenever desired, to back up our guarantee of perfect work and absolute satisfaction with a bond.

Waterproofing Systems and Compounds

Of the great number of waterproofing compounds on the market, no one can be picked out as a "universal" waterproofer—"the very best thing"—for any and every job that comes to hand.

The principal reason why so many waterproofing preparations of real intrinsic merit fail to give satisfaction, is that they are placed on the market and advertised as a solution of any waterproofing problem whatever.

The case is exactly similar to that of the patent medicine which is warranted to cure anything from cross-eyes to consumption.

The one thing which must be learned in successful waterproofing is the fact that no two jobs are alike; and that the treatment which will satisfactorily cure one will just as likely kill another.

No single material has been compounded, or ever can be compounded, which will meet properly the requirements of all classes of waterproofing work.

Our mixture of HYDRO-BAR, as made to-day, is not suitable for every class of work, although it is the nearest thing to a "universal" waterproofer on the market.

Our experience and experiments with all the different systems of waterproofing have shown us what the proportions of a general waterproofer must be. HYDRO-BAR is compounded in those proportions to meet the largest possible percentage of cases.

Whatever your problem may be, the absolutely sure way to solve it is to place it in our hands. With a knowledge of your conditions and materials in hand, we alter and prepare our compound to fit the case and can guarantee a perfect job.

Cement Waterproofing

Cement has come to be one of the most important factors in building construction. Its one great fault has been its readiness to absorb moisture, which renders it unsuitable in its natural state for work below the water line, or even above ground in a changeable climate like our own.

A material which will make cement effectively waterproof will revolutionize its use all over the world.

Cement waterproofing already has become an essential in building, and when perfect work is done has been found to be as permanent, if not more so, than the old system of tar and felt waterproofing.

In tar waterproofing, it is very difficult to find the exact location of a leak, which is sometimes as much as ten feet from the place where the water shows through.

In cases of leakage in cement waterproofing, repairs are very easily and economically made, the material being applied in the mass or on the interior surface of walls.

HYDRO-BAR is the most economical cement waterproofer on the market. A surface coating of cement $\frac{1}{8}$ -inch thick will cost approximately one cent per square foot, for the waterproofing. Concrete in the mass will cost approximately three cents per cubic foot. It does not require the same proportions of mixture in the mass that it does in the surface coating. The proportion is one part HYDRO-BAR to fifteen parts water for surface coating, and one gallon HYDRO-BAR to thirty gallons water for concrete in the mass.

“Lapadas” Hydro-Bar

HYDRO-BAR, of which we are the owners and manufacturers, is the waterproofing compound which we use extensively in work which we contract for and carry out ourselves.

HYDRO-BAR is a scientific, chemical preparation of silicate, by the use of which you can render your cement and concrete construction absolutely and permanently waterproof. The name (from the Greek Huydor, water) means a bar and impassable obstruction to the passage of water or moisture in any quantity or form.

HYDRO-BAR is a composition of a thin paste-like consistency put up for convenience in handling in three-gallon cans.

HYDRO-BAR is made use of simply by dissolving the contents of each can in an ordinary 48-gallon barrel of the water, with which afterwards your cement or concrete mixture is tempered or wet down.

Among the various waterproofing compounds on the market, the most common are in the form of a light powder, which in order to be of any use must be mixed physically with the heavier powdered cement. It is a practical impossibility to make this mixture perfect, especially with the grade of help usually on the work, and the result is inevitably more or less disappointing both to the builder and to the owner of the property.

HYDRO-BAR, being carried through the cement or concrete by the medium of the water used in wetting down, reaches every molecule of the cement and forms with it a perfect chemical combination.

The practical result of the use of HYDRO-BAR is the compact filling up of all voids and pores which exist in ordinary cement construction and which render such construction unsuitable and unsatisfactory when the entrance of moisture must be withstood.

The chemical union of HYDRO-BAR with the constituent elements of the cement and the compactness of the resulting mass give to the latter 25 per cent. additional strength, and cause it continually to increase in strength with age.

HYDRO-BAR, when combined chemically with the limes in the cement, forms a mass insoluble even to acids. Sulphuric and muriatic acids have no effect upon it. For this reason concrete construction

"Lapadas" Hydro-Bar

treated with HYDRO-BAR is especially suitable for tanks and drains in factories where chemicals are used.

Concrete construction properly treated with HYDRO-BAR is absolutely and permanently moisture and acid proof in any climate. The deleterious effects of frost, the greatest enemy of concrete in this climate, are obviated by its use. Having no pores into which moisture can penetrate, it is unaffected by any variations of temperature.

By the use of HYDRO-BAR the steel core grill or netting in reinforced concrete construction is absolutely protected from the moisture which enters through the pores of all ordinary concrete.

Water even under heavy pressure cannot be forced through a cement or concrete block treated with HYDRO-BAR.

HYDRO-BAR adds strength to the hardened concrete mass, prevents discoloration, gives it an even tone throughout and assures a smooth, hard surface which will remain for all time free from cracks and crazes.

Any good hydraulic building cement may be treated successfully with HYDRO-BAR.

Any workman, however unskilled, by following simple directions can treat your cement construction with HYDRO-BAR without mistake.

HYDRO-BAR has been in use over three years, during which time it has been tested and found a perfect bar to moisture by engineers, architects, builders and experts in all classes of cement and reinforced concrete construction.

HYDRO-BAR, besides being the most efficient and satisfactory, is one of the most economical waterproofers on the market, both in original cost and in the method of handling.

HYDRO-BAR should be dissolved in the clean water used in wetting down your cement in proportion of fifteen to one. A three-gallon can of HYDRO-BAR is exactly the right quantity to use in an ordinary 48-gallon barrel of water.

Simply dump the contents of the can into the barrel of water and stir thoroughly until dissolved. Then proceed in the usual way to temper your cement.

“Soloto” Hydro-Lite

HYDRO-LITE is a scientific, chemical preparation composed of a mineral base held in solution with a Hydro-Carbon carrying agent. Hydro-Carbon having greater penetrative powers than water, is more readily taken up and absorbed in the material treated.

HYDRO-LITE is a transparent liquid, put up ready for application with a brush or spray machine. The number of coats required for a thorough job of waterproofing depends on the degree of porosity of the material to which the HYDRO-LITE is applied.

The material to be waterproofed should first be brushed down and rendered free from dust and dirt, and the HYDRO-LITE then applied in coats 24 hours apart. Two or three coatings usually are sufficient, but the material should be treated with all it can take up, until thoroughly saturated. The more it will absorb, the more satisfactory will be the result.

HYDRO-LITE is a product particularly suitable for use as a surface coating for brick, stone, concrete and stucco structures which it is desired to waterproof after the construction is completed. We do not advise coatings in cases where the material can be mixed in the mass.

Its greatest efficiency and economy of use is in repair work of all kinds. The covering capacity of HYDRO-LITE runs from 75 feet to 150 feet of completed work per gallon.

In certain stages, in damp weather particularly, a saltpetre or effervescence will show out on the surface of brick or concrete walls, which causes a discoloration.

By the application of HYDRO-LITE the pores are sealed up and the causes of the discolorations done away with. In cases where walls are already discolored in this manner, we advise the use of a neutralizer or some acid solution before the application of the HYDRO-LITE.

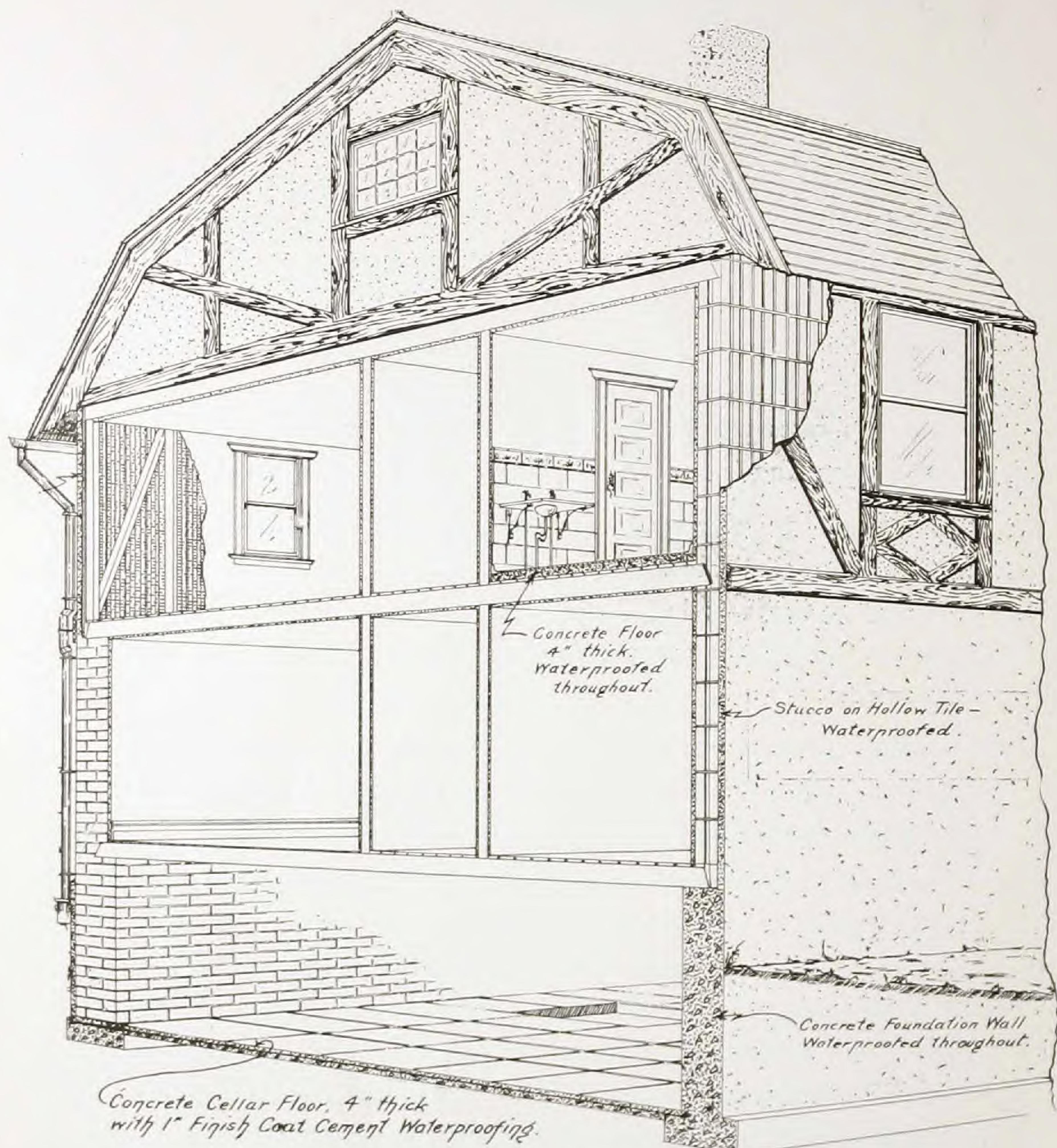
Stucco

Stucco work is cement plastering. In one form or another it has been in use for a great many years. Although artistic and durable to a certain extent, it is not water and weather proof, particularly in the northern climates, where the material is subject to heavy rains in fall and winter, followed up by frost. The stucco becomes saturated with water; this water freezing, causes the material to crack and break loose from the surface upon which it is applied. In cases where wire lath is used, the moisture penetrates to the lath, causing it to corrode and rust out in two or three years.

HYDRO-BAR waterproofing compound mixed with the cement will absolutely eliminate all the above defects. It not only makes the stucco waterproof; but, in cases where colors are used in the cement, it also brings out the artistic effects and helps make the colors permanent.

Stucco is usually applied in two or three coats and is used either on hollow Tile, Brick or Wire lath. We advise the following mixture for practically all classes of Stucco:

One part of cement to three parts clean coarse sand mixed with a small amount of lime, which has a tendency to make the material work better. With wire lath it is advisable to use a small amount of hair in the first coat. The above mixed dry and wet down with HYDRO-BARRED water, mixed in the following way: One part HYDRO-BAR to 15 parts water. Care should be taken that the sand in all cases is clean and sharp. HYDRO-BAR will not waterproof mud.

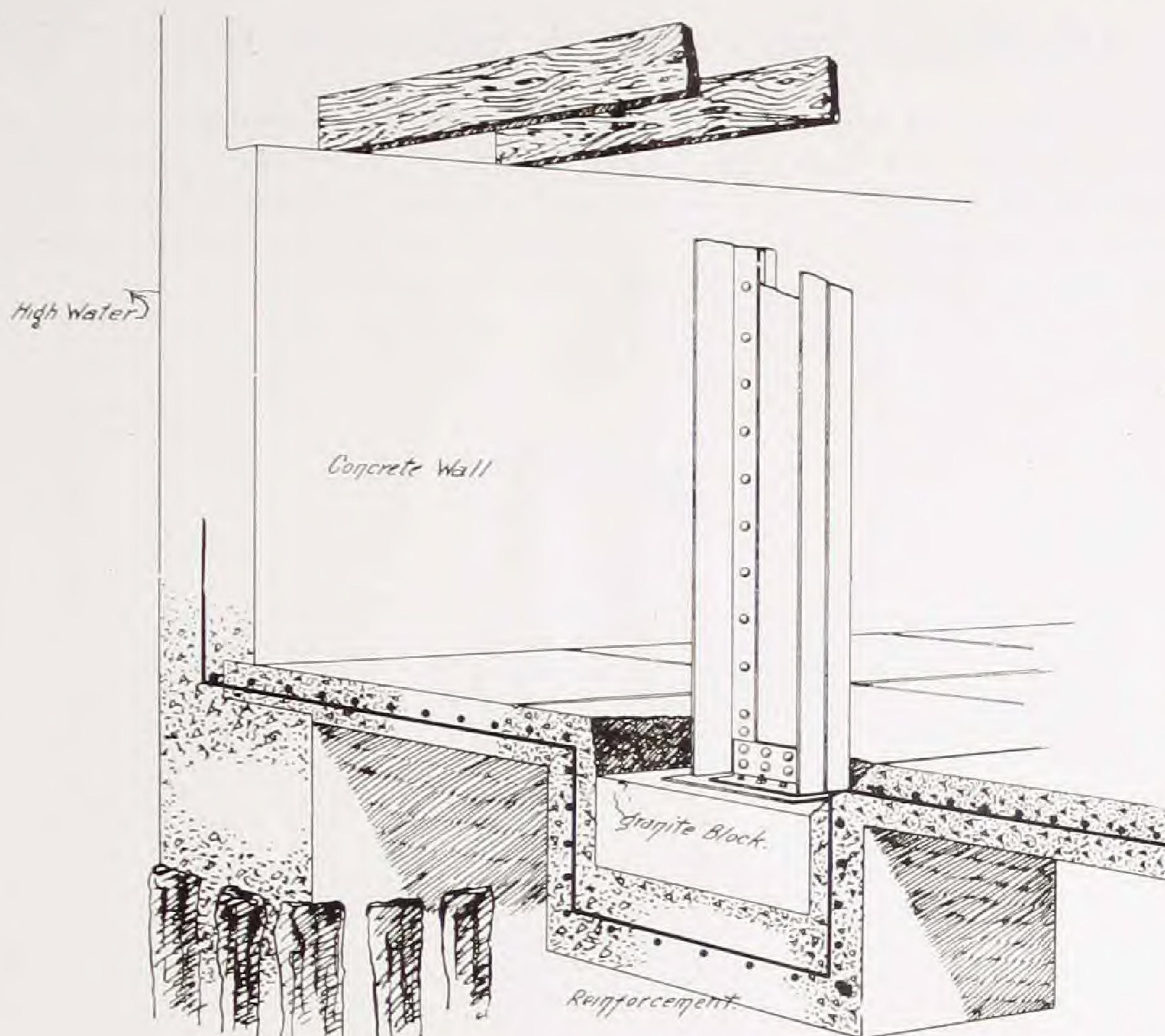


CUT No. 1.

This cut shows the two styles of construction used in suburban homes.

The right side of the cut shows stucco and terra cotta blocks with a concrete foundation. The left shows the wire lath construction with a brick foundation, with first story of brick.

All of the above is waterproofed with HYDRO-BAR WATERPROOFING COMPOUND.



CUT No. 2.

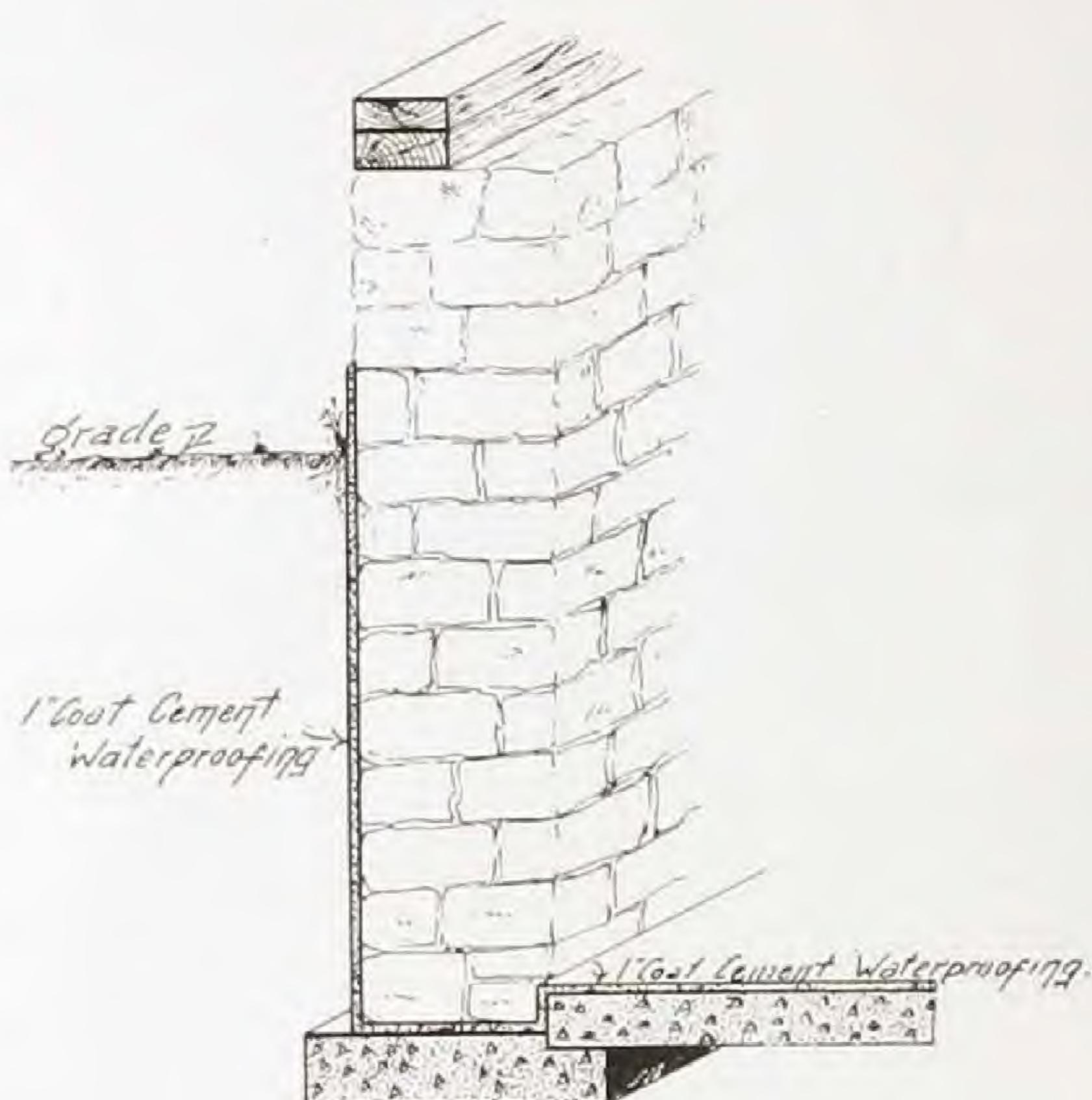
This cut is suggestive of the construction applicable to foundation walls built under water, without the addition of 4 inches of concrete to the interior surface to hold the waterproofing in place. It shows also the under coating of concrete which is used for placing the tar waterproofing on. Under our system of waterproofing, the walls are built of regular thickness and finished off on inside with a $\frac{1}{2}$ -inch cement plaster. The floors are reinforced with iron bars, according to the amount of pressure present.

These bars are carried up into the walls, making a regular box, which eliminates any chance of settlement cracks at the point of connection between the walls and floor.

We suggest the following mixture for concrete and cement mortar in work of this character: One part of Portland cement, 2 parts of clean sharp sand and 4 parts broken stone. The above material should be thoroughly mixed in its dry state and wet down with HYDRO-BARRED water. (One part HYDRO-BAR to 15 parts water.) The finish coat on floor and the plaster on walls should be mixed in the following proportions: One part Portland cement to two parts clean sharp sand, waterproofed with HYDRO-BAR mixture. A foundation built under these directions will stand from four to six feet of water pressure, which is all you are ever likely to have.

Applicable to Walls of Suburban Homes

On completion of footing course of concrete, apply a one-inch coating of cement mortar over same and erect foundation walls above. After completion of foundation walls, apply a one-inch coat of cement mortar to the exterior surface of walls, taking care that the cement mortar is thoroughly floated in, so as not to leave any pin holes or air bubbles.



CUT No. 3.

Concrete floors and cellars should be laid with a three- or four-inch sub-base of one part Portland Cement, two and one-half parts clean sharp sand, and five parts stone or gravel. The thickness of slab should be regulated according to pressure and span. The sub-base should be finished off with a one-inch coat of cement mortar. Top coat on floor should connect with one-inch coat under foundation walls. Particular care should be taken in bonding finish coat with the cement coat under the walls.

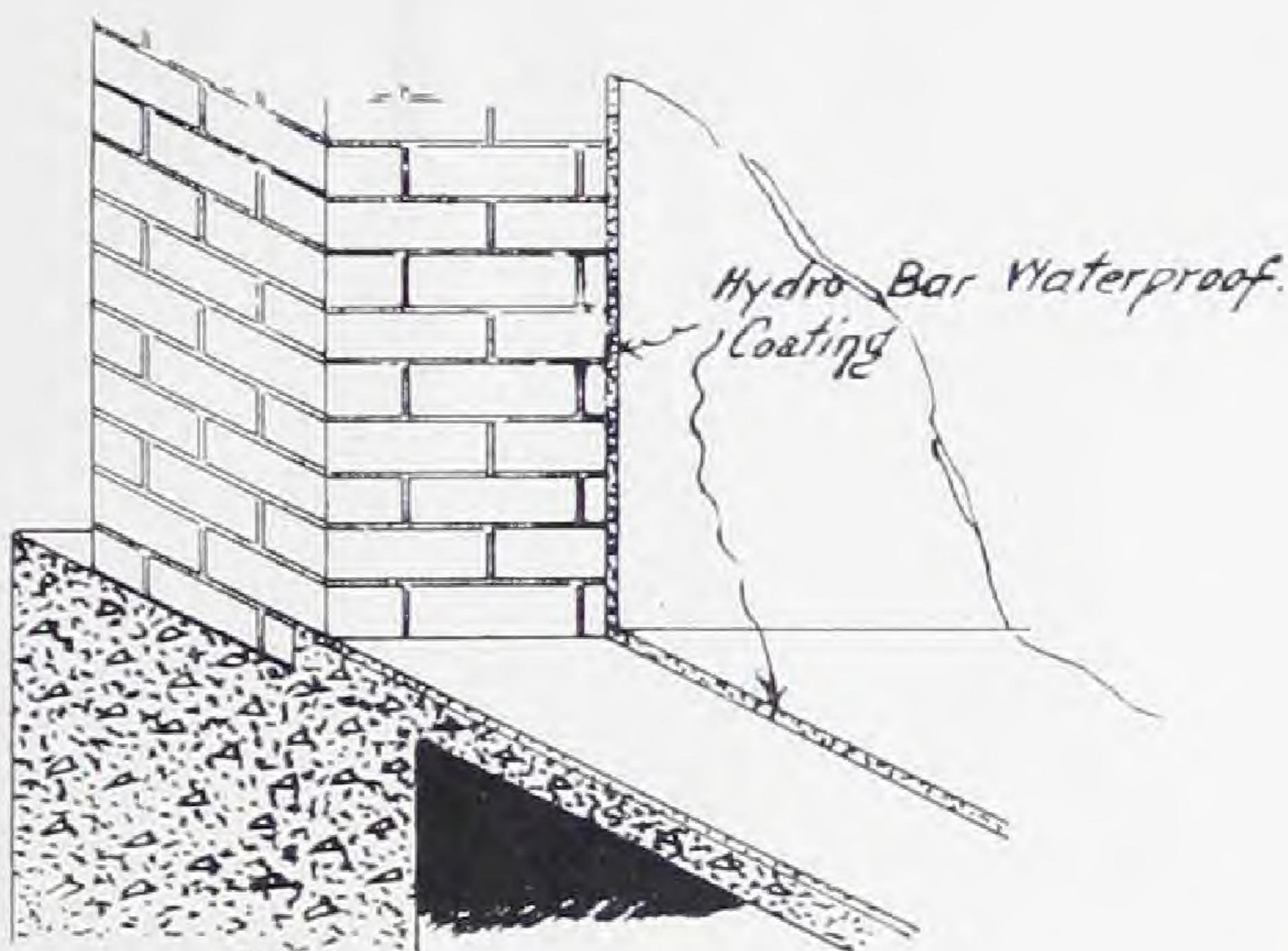
Cement mortar throughout this application should be mixed in the following proportions: One part Portland cement to two parts clean sharp sand thoroughly mixed in its dry state. Wet down with water mixed with HYDRO-BAR WATERPROOFING COMPOUND, one part of HYDRO-BAR to fifteen parts water.

This system has many advantages as a waterproofer. It places the work in the hands of a mason contractor, eliminating all disputes. It reduces the cost from forty to seventy cents, cost being approximately $1\frac{1}{4}$ c. per square foot for HYDRO-BAR WATERPROOFING COMPOUND. It eliminates all chance of delaying the mason contractor, by the waterproofing contract.

Waterproofing Old Foundation Walls

All interior surface of exterior walls, up to a height of high-water line, and the upper surface of the floor slab throughout the building, should be waterproofed in the following manner:

Materials should be good Portland Cement mixed in the following proportions: One part Portland Cement to two parts clean sharp sand, thoroughly mixed in its dry state. Then wet down with water, mixed with HYDRO-BAR WATERPROOFING COMPOUND; one part HYDRO-BAR to fifteen parts water.



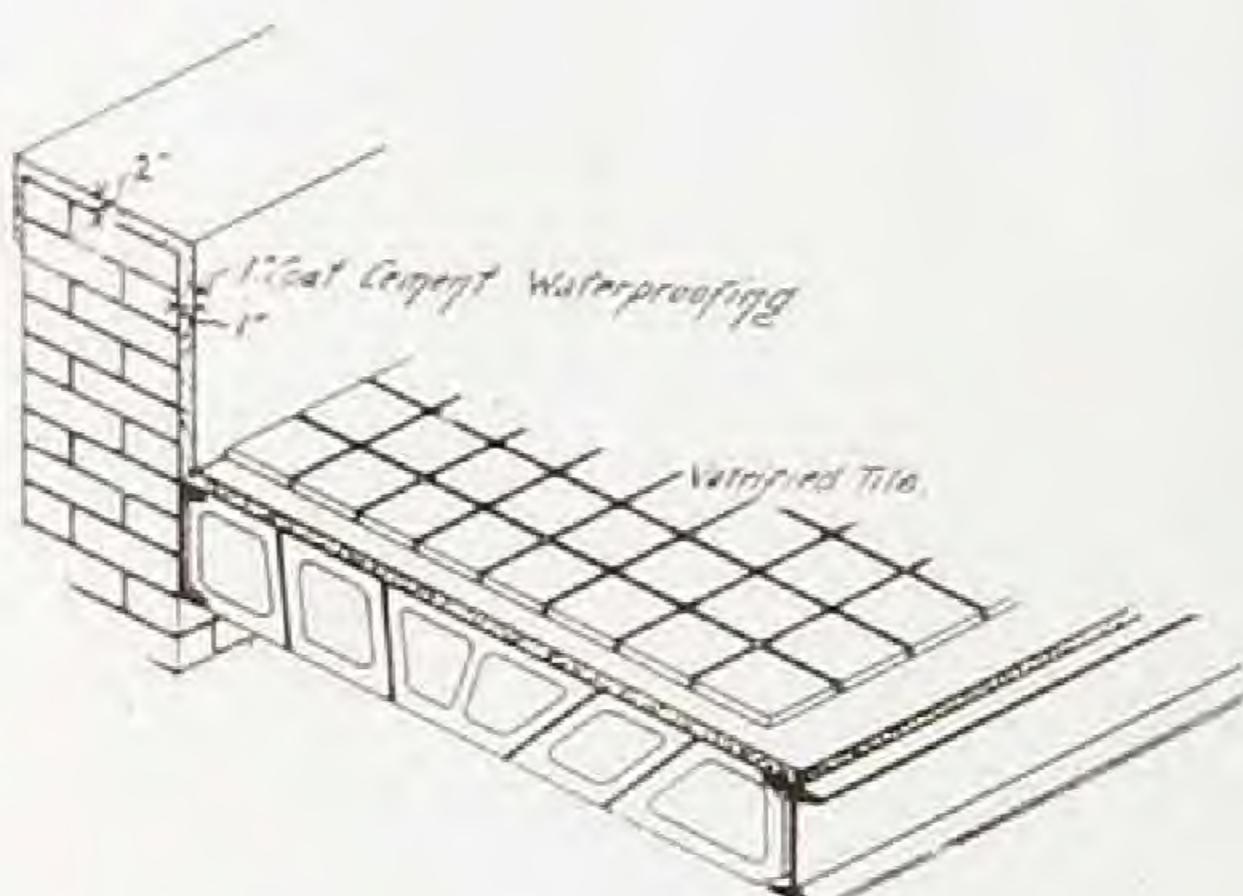
CUT No. 4.

APPLICATION:—All walls before the application of waterproof coating should be thoroughly chipped and cleaned down with a wire brush and given one brush coat of HYDRO-LITE No. 2, which acts as a bonding material. Twenty-four hours after application of HYDRO-LITE No. 2, the walls should be thoroughly washed down with water and covered with a brush coat of cement mortar. Upon this apply your waterproof cement coating. Wall coating should be applied in two coats, approximately three-fourths inches in all. Second coat should be applied within twenty-four hours after application of first, and thoroughly floated in with a wooden float, leaving sand finish.

Floor coating should be applied in one coat, to be approximately $1\frac{1}{2}$ inches thick and reinforced with light wire lath; floated with a wooden float and finished with a steel trowel.

In cases where there is a continuous flow of water through the wall, we would suggest the use of bleeding; that is, drilling a one-inch hole through the wall. Drive in a one-inch pipe, which will allow the water to pass out through the pipe clear from the wall. In this way you will be able under ordinary conditions to carry the water clear of your wall, and can cement directly up to the pipes. After the cement is thoroughly set, cut the pipe off with a hack saw, plug up and cement over.

Applies to the Use of Hydro-Bar in Roof Construction



CUT No. 5.

A roof constructed of waterproof cement is good for all time to come. A great many leaks charged up to the waterproofing contractor are caused by the rain beating through the parapet walls. Then it finds its way down through the walls to the floors below, and shows out on the ceiling and side walls. HYDRO-BAR CEMENT MORTAR applied on the interior surface of the parapet walls will eliminate this defect permanently.

We suggest the use of waterproof cement as a bedding for tile, in Tile Roof construction, which eliminates the extra cost of the waterproofing course.



HENDRICK HUDSON HOTEL, UNION HILL, N. J.

TERRACE PARK REALTY COMPANY, INC.

Main Office, 163 Bergenline Avenue, Town of Union, N. J.

HYDRO-BAR WATERPROOFING Co., December 23d, 1909.
30-34 West 33d Street, New York, N. Y.

GENTLEMEN:—

I take great pleasure in stating that the HYDRO-BAR WATERPROOFING COMPOUND used in the stucco work in the Hendrick Hudson Hotel Building, which the Terrace Park Realty Company has an interest in and of which Company I am secretary, has been in every way satisfactory to us. The walls of this Hotel are built of wood with wire lath, and three coats of stucco.

We pride ourselves on having one of the most perfect and evenly colored stucco jobs in this part of New Jersey.

The stucco has been in place approximately 8 months, and up to the present time there is not a crack in the entire building. The usual trouble in stucco work, as I have found in my experience, is, that it is full of small cracks, which allows the water to get into the stucco and freeze, causing the stucco to crack and fall out. I have also noticed in a great many stucco jobs the discoloration of the cement, which your material in this job seems to have eliminated. Yours very truly,

(Signed) ADOLPH SIEBERT.



LINCOLN AVENUE SCHOOL, ORANGE, N. J.

This school, located on Lincoln Avenue, Orange, N. J., is one of the largest schools in that section.

The engine room was waterproofed with tar, and, through settling or bad workmanship, the waterproofing was a failure. There were from eight to ten inches of water in the room when we were called in.

By the application of a one and one-half inch coating of cement mortar over the floor, reinforced with wire lath, and a one-inch coating on the interior surface of the side walls, the room was made thoroughly watertight.

Builder: F. W. Kilgus, 13-21 So. 6th St., Newark, N. J.

Architect: E. F. Guilbert, City Architect of Newark.

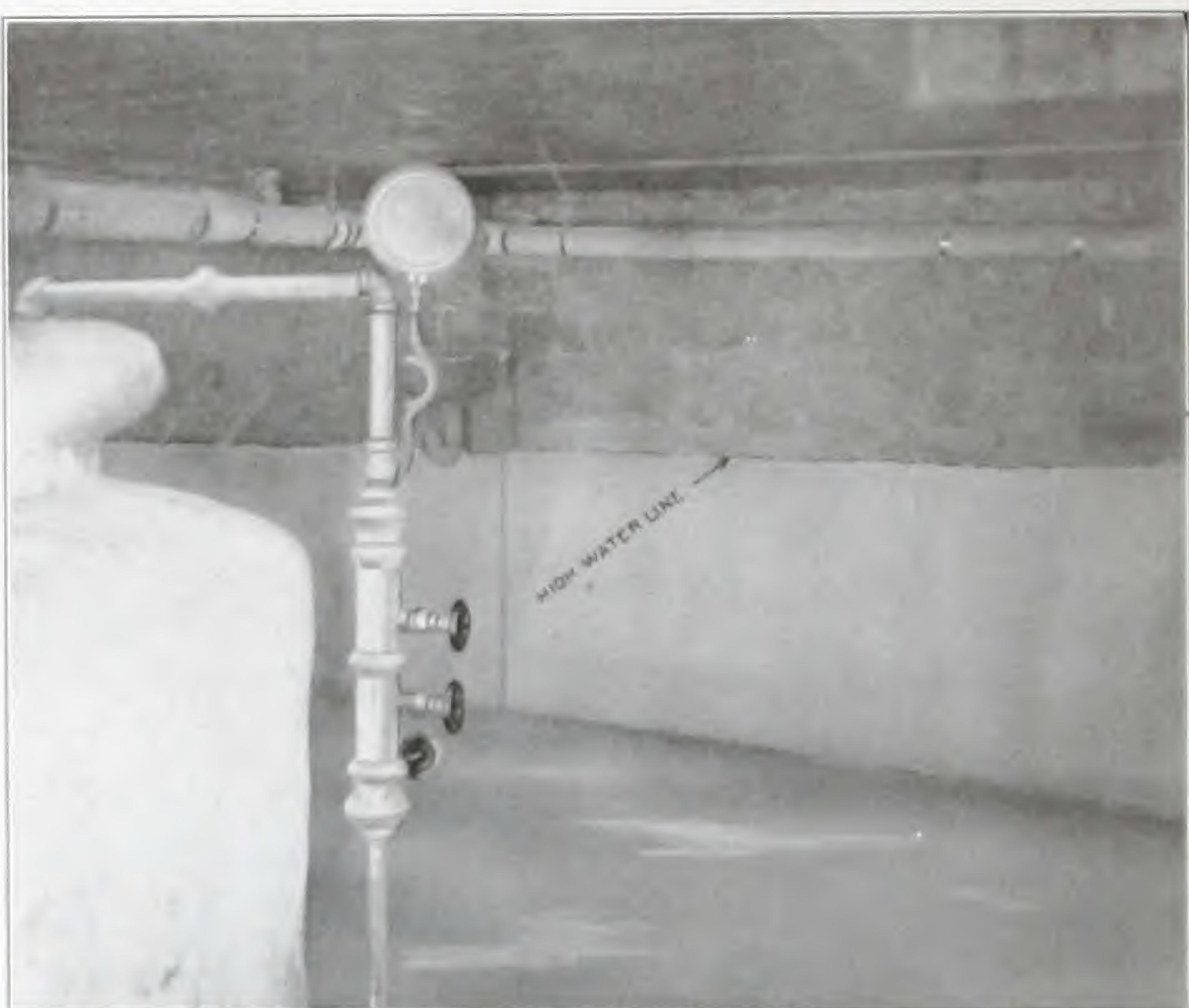


J. M. LOWDEN BUILDING, 143 WEST 15TH STREET, N. Y.

The walls of this building were constructed of common brick, very soft and porous, which permitted the percolation of water.

We treated the exterior walls with our HYDRO-LITE WATERPROOFING COMPOUND, mixed with a color. In this case two coats proved sufficient to afford a thorough saturation, and the walls were rendered perfectly watertight.

Architect: C. H. Pittman, 25 West 32nd Street, N. Y.



BOILER ROOM IN BASEMENT OF 98 WASHINGTON STREET, NEW YORK.

There were 38 inches of water in this room when we were called in, filling the fire-box of the boiler.

The floor was of concrete, 18 inches thick, and the walls of stone, 20 inches. The tide-water pressure was such that water was forced through, filling the room as above stated.

A 2-inch coat of cement mortar mixed with HYDRO-BAR, reinforced with wire lath on the floor, and a one-inch coating on the side walls made this room absolutely watertight.

This work was done about a year ago; the time required was four days, with a foreman and two helpers.

Builder: John T. Brooks Co., 116 West 42nd Street, New York.

Mr. Brooks will be glad to reply to any inquiries regarding our work.

Hydro-Lite Damp Proof Paint

Concrete, brick or stone all are more or less porous, permitting dampness to penetrate through outside walls. The old method of eliminating this defect was the costly system of furring and lathing.

By the use of HYDRO-LITE DAMP PROOF PAINT, which forms a perfect bond between the masonry and plaster, an absolutely damp-proof job may be secured. HYDRO-LITE DAMP PROOF PAINT not only does away with the extra cost of furring and lathing, but also is a saving of from one to two inches of space throughout the work.

HYDRO-LITE DAMP PROOF PAINT has a mineral base with the highest damp resisting qualities. It is very tenacious, forming a tough elastic coat which keeps the interior of the building at an even temperature and perfectly dry.

In applying HYDRO-LITE DAMP PROOF PAINT we recommend the use of two coats. The first coat should be thinned down with our HYDRO-LITE THINNER; one gallon of thinner to three gallons of HYDRO-LITE PAINT. The second should be applied full strength. Care should be taken to avoid leaving any pin holes or defective joinings. In most cases one coat is sufficient.

HYDRO-LITE DAMP PROOF PAINTS are put up in two, five and ten gallon cans, also in barrels and half-barrels.

WRITE FOR SAMPLES.

Solvay Protective Paints

We are the distributing agents for the SEMET-SOLVAY PROTECTIVE PAINTS, which need no introduction.

These paints have been used successfully in protecting submerged steel, pipes, pumps, bridges, smoke stacks, etc. They are made from carefully prepared coke oven pitch, reduced with refined hydro-carbon oils. This forms an absolutely homogeneous carbon varnish which successfully resists the most severe conditions of service.

SOLVAY PROTECTIVE PAINTS are made up in several different qualities, suitable for the condition for which they are used. We suggest that you write us, stating the material and conditions under which you want to use the paint.

CRYSLITE PROTECTIVE PAINTS are designed for use on: Corrugated Iron, Structural Steel, Bridges and Viaducts, Coal-Handling Plants, Metal Roofs, Tanks, Blast Furnaces, Chemical Plants, Conveying Machinery and all kinds of Iron and Steel Structures.

SAMPLES FURNISHED ON APPLICATION.

Some of Our Work

BUILDERS' EXCHANGE, 30-34 West 33rd Street, New York City, G. F. Hall Company, 206 Centre Street, New York City.

Wall waterproofed with Hydro-Lite.

LINCOLN AVENUE SCHOOL, Orange, N. J., Fred. Kilgus, Builder, 13-21 S. 6th Street, Newark, N. J.

Boiler Room waterproofed with Hydro-Bar.

CONSUMERS' HYGIENIC ICE CO., Fulton Street, Union Hill, N. J., York Manufacturing Co., Contractors.

Oil Pit waterproofed with Hydro-Bar.

PAPER MILL, Saugerties, N. Y., Martin Cantine Co., Owners, R. R. Livingston, Engineer, 2 Rector Street, New York City.

Coal Pocket waterproofed with Hydro-Bar.

SIXTEEN HOUSES ON SUNNYSIDE AVENUE, Weehawken, N. J., Geo. W. Bond, Owner and Contractor, 148 Bull Ferry Rd., Weehawken, N. J.

Walls waterproofed with Hydro-Lite.

NORTH HUDSON HOSPITAL, Weehawken, N. J., Bond & McNally, Contractors, Robert C. Dixon, Jr., Architect, 148 Bulls Ferry Rd., Weehawken, N. J.

MORTAN-LANGE CO., Contractors, 143 Madison Ave., New York City, Mr. McVicker's Residence, Mamaroneck, N. Y. Hoppin & Koen, Architects, 246 Fifth Avenue, New York City.

Cellar waterproofed with Hydro-Bar.

KIERNAN-HUGHES CO., Ninth and Brunswick Streets, Jersey City, N. J.

Cellar waterproofed with Hydro-Bar.

LORILLARD REFRIGERATOR CO., 25 West 32nd Street, New York City.

143-145 WEST FIFTEENTH STREET, New York City, C. H. Pittman, Architect, 25 West 32nd Street, New York City.

Wall waterproofed with Hydro-Lite.

98 WASHINGTON STREET, New York City, John T. Brooks Co., Builders, 116 West 42nd Street, New York City.

Cellar waterproofed with Hydro-Bar.

NONPAREIL CORK WORKS, Office 50 Church Street.

Continuous users of Hydro-Bar for waterproofing cement on insulating cork.

Whatever your Problem in
Waterproofing

SEND FOR US

HYDRO-BAR WATERPROOFING CO.

"Experts in Waterproofing"

30 WEST 33rd STREET, NEW YORK

